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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/043,636

01/09/2002

Jinghui Lu

X-1014 US

6524

24309

7590

11/13/2003

XILINX, INC

ATTN: LEGAL DEPARTMENT

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EXAMINER

HE, AMY

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/043,636

Applicant(s)

LU, JINGHUI

Examiner

Amy He

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 16-41 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 15 is/are rejected.
- 7) ☒ Claim(s) 3 and 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-15, drawn to an amplifier, classified in class 330, subclass 252.
  - II. Claims 16-22, drawn to an amplifier load, classified in class 330, subclass 250.
  - III. Claims 23-41, drawn to a circuit for calibrating a resistance between a first circuit node and a second circuit node, classified in class 324, subclass 601.
2. Inventions II and I are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, inventions II have separate utilities such as an amplifier load for other amplifier circuit, not necessarily the same amplifier as claimed. See MPEP § 806.05(d).
3. Inventions III and I are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, the circuit for calibrating a resistance between a first circuit node and a second circuit node can be used in different circuits for calibrating a resistance, other than the specific amplifier circuit as claimed. See MPEP § 806.05(d).
4. Inventions III and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of

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operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the amplifier load and the circuit for calibrating a resistance value have different functions. The amplifier load functions as a load for the amplifier circuit while the circuit for calibrating a resistance value functions to calibrate the resistance between a first circuit node and a second circuit node.

5. Because these inventions are distinct for the reasons given above and the search required for Group II and III are not required for Group I, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Kim Kanzaki on October 30, 2003, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-15. Claims 16-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims 1, 4 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Paul et al. (U. S. Patent No. 6, 549, 071).

Referring to claims 1 and 15, Paul discloses an amplifier (in Figure 10) comprising:

a power terminal ( $V_{DD}$ );

a load transistor ( $M4+$ ) having a first load terminal connected to the power terminal ( $V_{DD}$ ), a second load terminal, and a load-control terminal;

an input transistor ( $M2+$  or  $M1+$ ) having a first current-handling terminal connected (directly or through  $L1+$ ) to the second load terminal, a second current-handling terminal, and an input-transistor control terminal; and

an inductor ( $L4$ ) having a first inductor terminal connected to the load-control terminal and a second inductor terminal connected to the second load terminal.

Referring to claim 4, Paul discloses the amplifier of claim 1, wherein the first current handling terminal of the input transistor ( $M1+$ ) connects to the second load terminal via a resistor ( $L1+$  having a resistance, is considered a resistor here).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paul et al. (U. S. Patent No. 6, 549, 071).

Referring to claim 2, Paul discloses an amplifier as in claim 1, comprising a first inductor (L4). Paul does not disclose a second inductor connected between the second inductor terminal and the second load terminal. However, a person of ordinary skill in the art would find it obvious at the time of the invention to modify Paul to use a second inductor in series with the first conductor for providing the same inductances, since it has been held to be within the general skill of a worker in the art to select a known tool for a known purpose on the basis of its suitability for the intended use as a matter of obvious design choice *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA).

***Allowable Subject Matter***

9. Claims 3 and 5-8 are objected to as being dependent upon a rejected base claim (claim 1), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 9-14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

claims 9-14 are allowable because none of the prior art teaches an amplifier with the specific connections as claimed, between a first and second load control terminals of a first and a second load transistors and a first and second inductors, as well as a first, second and third resistors, in the combination as claimed.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (703) 305-3360.

The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

AH  
November 4, 2003

  
N. Le  
Supervisory Patent Examiner  
Technology Center 2800